



Endangered Plant Species Mitigation and Dry Forest Restoration Plan at the Villages of La‘i‘ōpua

Kealakehe, Kailua-Kona, Hawai‘i

Prepared for the Department of Hawaiian Home Lands

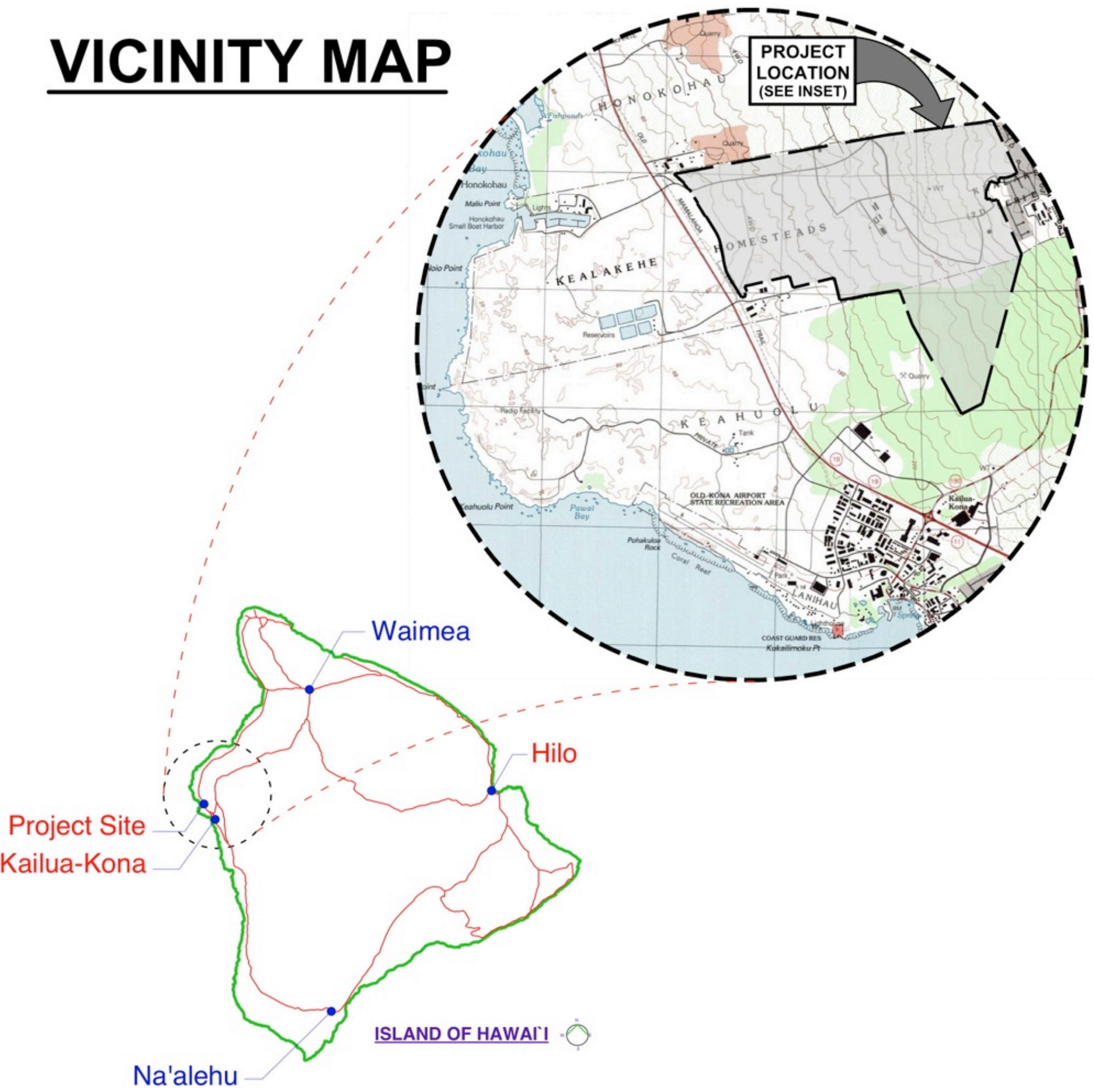


*Prepared By:
Leonard Bisel Associates, LLC and
Geometrician Associates*

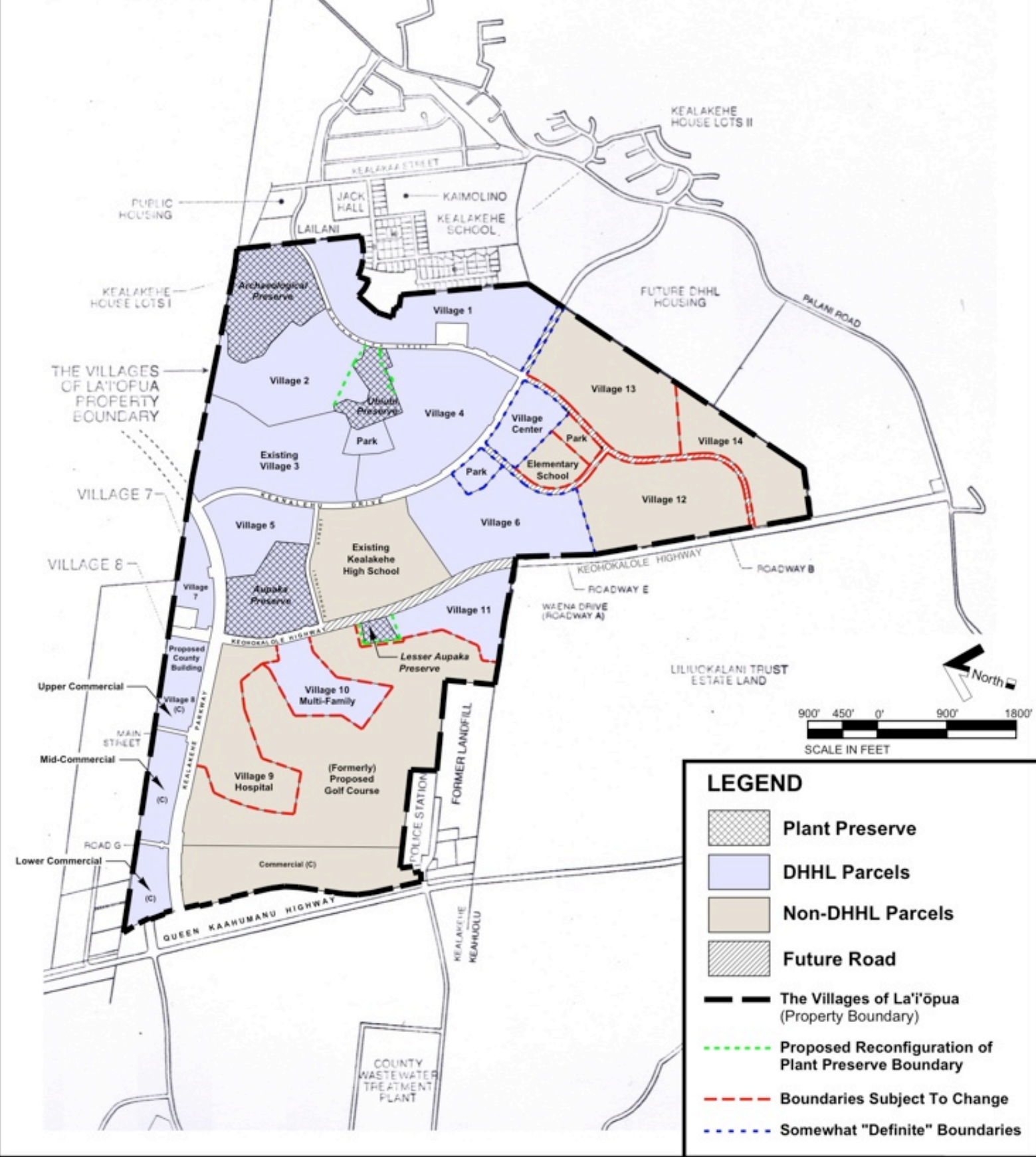
*With the Assistance of:
Grant Gerrish, Ph.D.
RANA Productions
Alice Moon and Company
Amy B.H. Greenwell
Ethnobotanical Garden
Engineering Partners Inc.
Rechtman Consulting*

The project implements mitigation commitments made pursuant to Section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884, Public Law 93-205, as amended), to protect individuals and develop plant preserves for the endangered plants *aupaka* (*Isodendrion pyriformium*) and *uhiuhi* (*Caesalpinia kavaensis*), in association with use of federal funds from the U.S. Department of Housing and Urban Development.

VICINITY MAP



INSET: VILLAGES OF LA'IŌPUA OVERALL SITE MAP



Na'alehu

ISLAND OF HAWAII

Hawaiian Lowland Dry Forests

- * Degraded by land clearing, wildfires, grazing and the spread of alien species
- * Former sources of food, fiber, medicine, and other materials
- * Unique and cherished resource that still support many of Hawaii's endangered plant species



The Villages of La'i'ōpua are
home to 2 federally listed
endangered plant species



Aupaka (*Isodendron pyriforme* A. Gray)





Uhiuhi (*Caesalpinia kawaiiensis* H. Mann)



The Villages of La'i'ōpua are also home
to 3 Species of Concern
“S.O.C.’s”



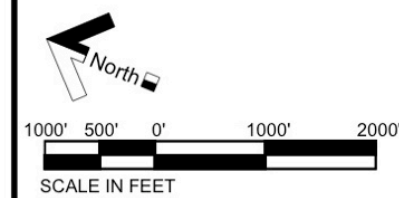
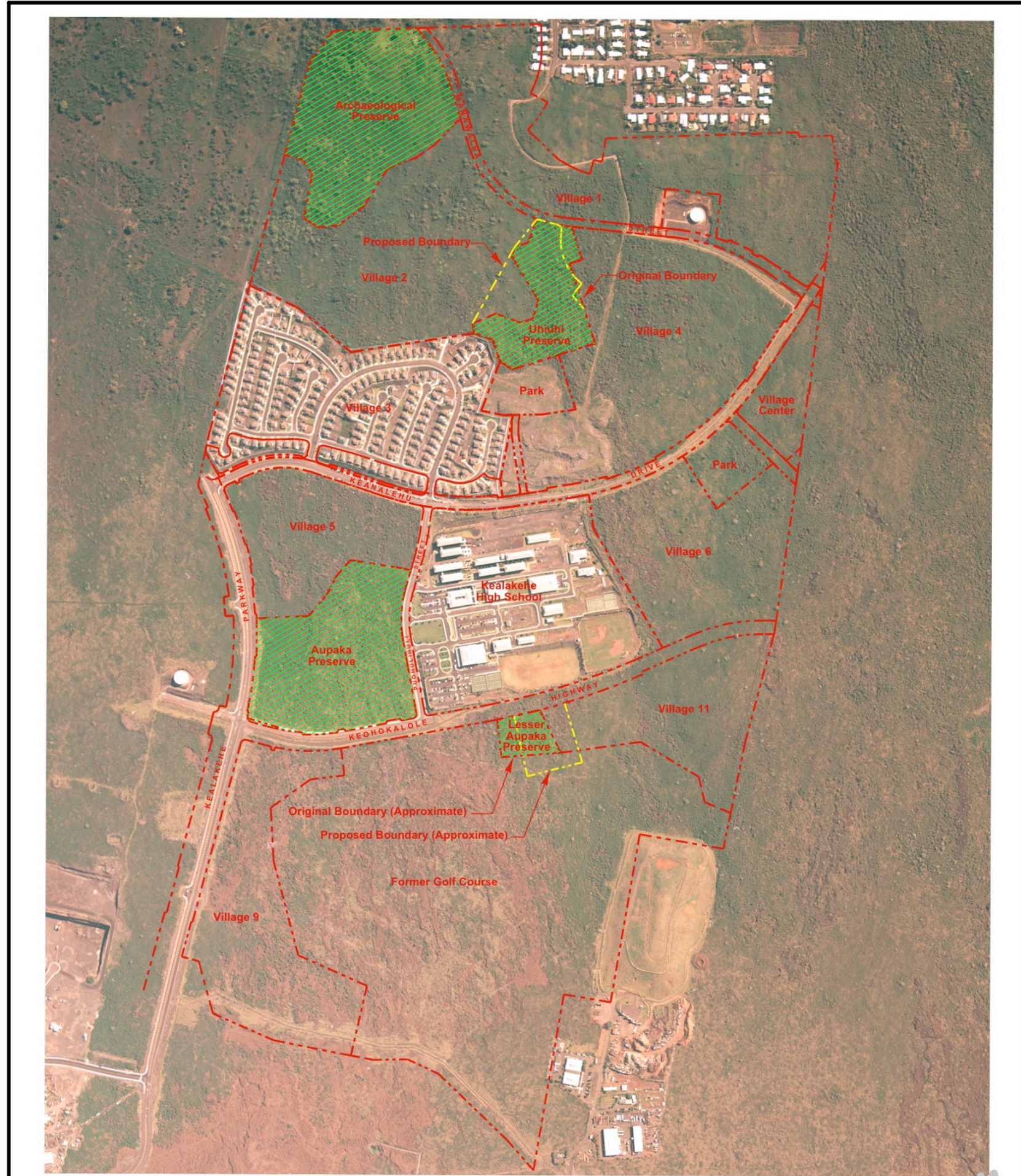
'Ohe makai (*Reynoldsia sandwicensis* A. Gray)



Maiapilo (*Capparis sandwichiana* DC)



Ko'oko'olau (*Bidens micrantha* ssp. *ctenophylla*)



AERIAL PHOTO OF VILLAGE THREE AND PROPSD PRESERVES

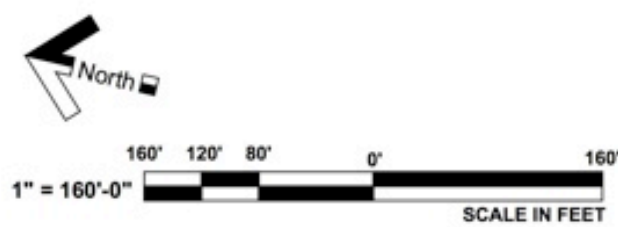
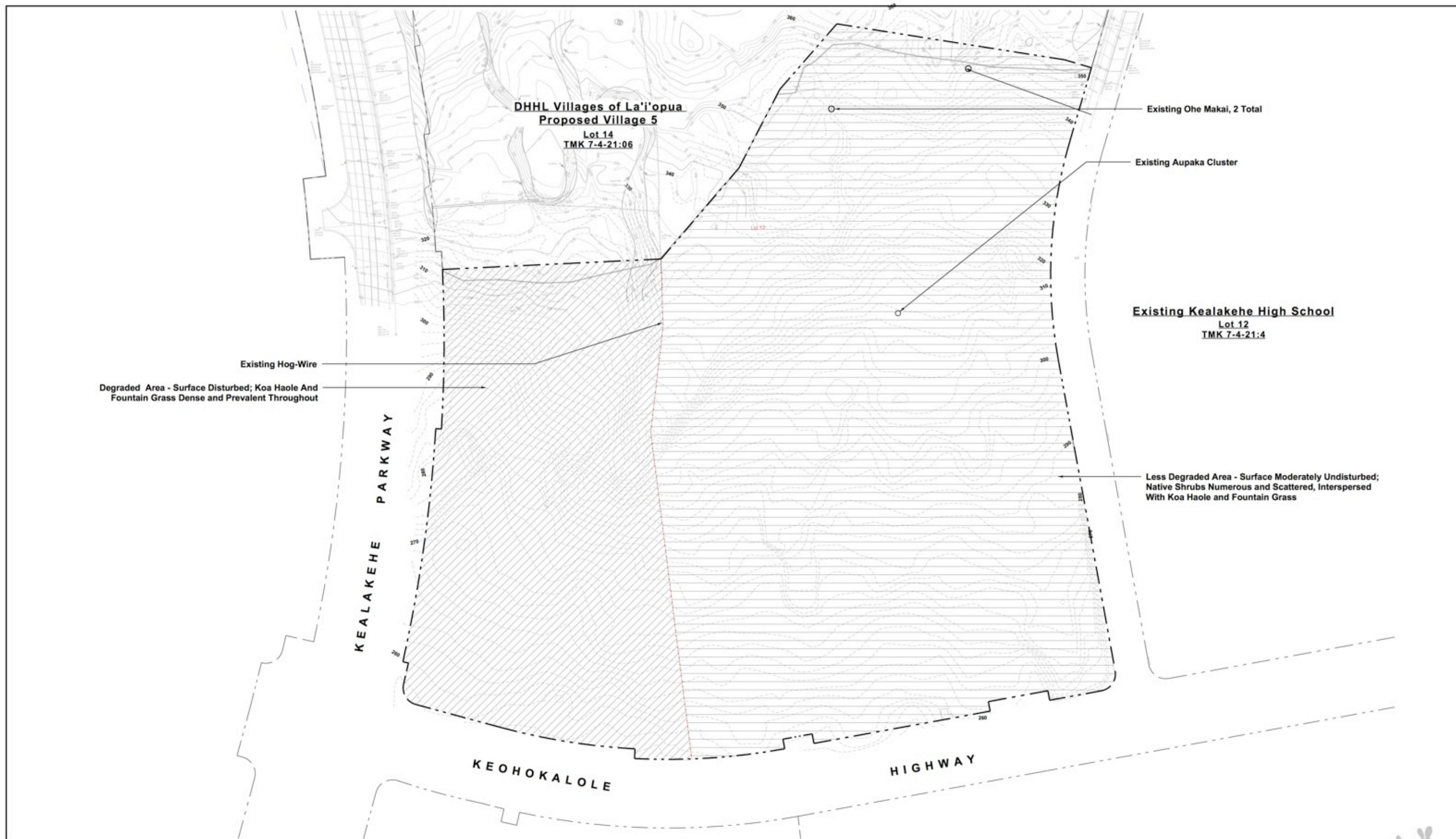
*Villages of La'i'opua
Plant Mitigation and Preserve Restoration*



PROJECT MISSION

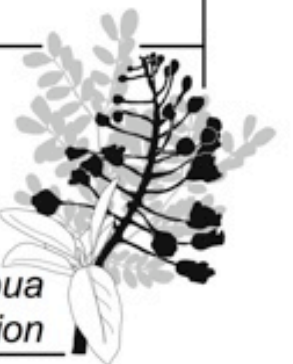
The mission of the La'i'opua Plant Mitigation and Preserve Restoration is to create and perpetuate dry forest plant preserves that will:

- * Preserve wild specimens and out-plant and nurture new individuals of the endangered aupaka and uhiuhi;*
- * Preserve and enhance portions of the preserve that support a relatively intact, unique dry forest appropriate to the ahupua'a of Kealakehe;*
- * Transform highly disturbed areas into a landscape of both common and rare native plants that can promote cultural uses and education;*
- * Provide a site to see, care for, and allow for education and traditional use of native plants, as consistent with conservation goals;*
- * Adopt preserve management strategies that are goal-directed and driven by information from an appropriate monitoring system*



Existing Condition Plan 'Aupaka Preserve
TMK: 7-4-021:05 Lot 13

Villages of La'i'opua
Plant Mitigation and Preserve Restoration



Project Benefits:

- * Helps to Preserve and Perpetuate Hawaiian Lowland Dry Forests
- * Provides Attractive Open Space Within The Community
- * Provides Educational Resource
- * Provides Cultural Resource
- * Provide Community Work Opportunities

Next Steps:

- * Finalize Conceptual Plans
- * Grant Writing
- * Preparation of Construction Drawings & Specifications
- * Project Construction
- * Long-Term Preserve Management

How Can You Get Involved?

- * Eradication of Alien Plant Species
- * Out-planting of Propagated Plants
- * Neighborhood / Preserve Watch
- * Preserve Management

Mahalo!